

REMARKS

Claims 1, 3-10 and 12-40 are pending in the present application. Claims 1, 10, 19, 22, 23, 31, 39 and 40 are independent claims.

Allowable Subject Matter

Applicant appreciates the Examiner's indication that claims 10 and 12-18 are allowed. In view of the remarks below, Applicant respectfully submits that each pending claim is allowable.

35 U.S.C. 101

Claims 1, 3-9, 20-22, 23-30 and 40 are rejected under 35 U.S.C. § 101 for allegedly being directed to non-statutory subject matter. Applicant respectfully traverses this rejection.

With regard to claims 1, 3-9, 20, 21 and 23-30, the Examiner alleges that these claims are process claims that are not tied to another statutory category invention (such as an apparatus), and thereby have "sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine" (e.g., see Pages 2-3 of the 2/25/2009 Office Action). By the present Amendment, independent claim 1 recites "processing communication signals with a wireless communication device circuit embedded in a repeater", and independent claim 23 recites "processing communication signals from a base station with a wireless communication device circuit embedded in a repeater" (Emphasis added). As the Examiner will appreciate, a circuit corresponds to a machine. The above-noted claim steps of processing with a "circuit" thereby have to be performed with a machine.

With regard to independent claims 22 and 40, the Examiner alleges that the claimed computer-readable mediums do not necessarily recite a relationship between the claimed

medium and the rest of the computer to perform the program's functionality to be realized. Applicant has amended claims 22 and 40 to address the Examiner's objections. If the present Amendment is not acceptable, clarification is respectfully requested (e.g., such as a claim example that would satisfy the Examiner's interpretation of 35 U.S.C. § 101 related to computer-readable or machine-readable medium claims).

In view of the above remarks and amendments, Applicant respectfully requests that the Examiner withdraw this rejection.

Specification Objection

Claims 22 and 40 stand objected to for failing to provide proper antecedent basis for the claimed subject matter. In particular, the Examiner states that the Specification recites a machine-readable medium, which is not the same as the claimed "computer-readable medium". By the present Amendment, Applicant has amended claims 22 and 40 to be directed to a "machine-readable medium". Accordingly, Applicant respectfully requests that the Examiner withdraw this objection.

35 U.S.C. 103(a) – Iwai in view of Yarkosky

Claims 23-25, 29, 31-33, 37, 39 and 40 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,815,795 ("Iwai") in view of U.S. Patent No. 6,990,313 ("Yarkosky"). Applicant respectfully traverses this art grounds of rejection.

Applicant agrees with the Examiner in that Iwai does not disclose "using the communication signals processed at the wireless communication device circuit to determine if

the repeater system is in oscillation by measuring signal quality of the communication signals from the base station, and determining oscillation if the signal quality meets a certain criteria” as recited in independent claim 23 and similarly recited in independent claims 31, 39 and 40. However, the Examiner cites to Yarkosky for allegedly disclosing this particular claim limitation.

Yarkosky is directed to a wireless repeater with an intelligent display. The ‘intelligent’ display outputs information to a user thereof regarding the repeater’s performance, such as a receive signal’s strength, a signal strength transmitted by the repeater and a textual indication of the repeater’s performance (e.g., Normal, Good, Bad, etc.) (e.g., see Yarkosky, Abstract and FIGS. 2A – 2D of Yarkosky).

Referring to FIG. 3 of Yarkosky, an input is received (step 40), after a controller identifies a strength of the input signal (step 42) and if the input signal strength is not too low (step 44) or too high (step 48), the controller performs automatic gain control (AGC) to eliminate feedback oscillation (step 52) (e.g., see Col. 7, lines 25-62 of Yarkosky). As will be appreciated, the reason step 52 needs to be performed is because, during operation of the repeater, the input signal from step 40 includes both (i) a ‘source’ signal component (e.g., from a base station or mobile station) and (ii) a ‘feedback’ signal component (e.g., from the repeater itself). Feedback oscillation is determined in Yarkosky as follows:

In the exemplary embodiment, the controller can detect the presence of feedback oscillation by determining whether the output signal strength is greater than a predefined threshold (such as -40 dBm, for instance) that is considered to indicate feedback oscillation.

(e.g., see Col. 7, line 66 to Col. 8, lines 3 of Yarkosky)

Accordingly, Yarkosky teaches that the presence of feedback oscillation is determined from the output signal strength transmitted from the repeater. With regard to the input signal from step 40 of FIG. 3 of Yarkosky, the input signal likely includes both the source signal

component and the feedback signal component. Oscillation in Yarkosky is not determined based on the signal quality (or strength) or the source signal component. Rather, Yarkosky bases this determination on the output or transmission signal strength of the repeater signal.

Further, it will be appreciated the signal strength of the input signal is not determinative of whether the repeater is in oscillation in Yarkosky. Referring to FIG. 2D of Yarkosky, if the signal strength of the input signal is too high to permit operation of the repeater, Yarkosky notes that this can be the result of either “when the receive signal strength exceeds a defined threshold, or when the gain of the build-out circuit cannot be reduced enough to eliminate feedback oscillation that occurs when the receive antenna picks up signals transmitted by the transmit antenna” (e.g., see Col. 7, lines 3-15 of Yarkosky). Thus, oscillation is one possible reason for a very strong input signal, but the repeater cannot rule out that the repeater is simply very close to the transmitter or else the transmitter is transmitting at very high power levels. Accordingly, the oscillation is determined in Yarkosky based on the output signal power strength, and not the input signal power strength, as evidenced by Col. 7, line 66 to Col. 8, lines 3 of Yarkosky.

For the above reasons, Applicant respectfully submits that the combination of Iwai and Yarkosky cannot disclose or suggest “using the communication signals processed at the wireless communication device circuit to determine if the repeater system is in oscillation by measuring signal quality of the communication signals from the base station, and determining oscillation if the signal quality meets a certain criteria” as recited in independent claim 23 and similarly recited in independent claims 31, 39 and 40 (emphasis added), because Yarkosky uses the output transmission signal strength to determine oscillation.

As such, claims 24-25, 29, 32-33, 37, dependent upon independent claims 23 and 31, respectively, are likewise allowable over Iwai in view of Sarkosky at least for the reasons given above with respect to independent claims 23 and 31, respectively.

Applicant respectfully requests that the Examiner withdraw this art grounds of rejection.

35 U.S.C. 103(a) – Iwai in view of Yarkosky in further view of AAPA

Claims 30 and 38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,815,795 (“Iwai”) in view of U.S. Patent No. 6,990,313 (“Yarkosky”) in further view of Applicant Admitted Prior Art (AAPA). Applicant respectfully traverses this art grounds of rejection.

The Examiner cites to a portion of the AAPA to compensate for Iwai and Yarkosky’s admitted deficiencies related to “the ratio of energy of a chip of a pilot signal to total interference (E_c/I_o) obtained from the processed communication signals to determine if the repeater system is in oscillation”. However, the AAPA only discloses reducing repeater oscillation by isolating the receive antenna from the transmit antenna, and these teachings are insufficient to cure the deficiencies of Iwai and Yarkosky as discussed above with respect to independent claims 23 and 31.

As such, claims 30 and 38 dependent upon independent claims 23 and 31, respectively, are likewise allowable over Iwai in view of Sarkosky in further view of AAPA at least for the reasons given above with respect to independent claims 23 and 31, respectively.

Applicant respectfully requests that the Examiner withdraw this art grounds of rejection.

Reconsideration and issuance of the present application is respectfully requested.

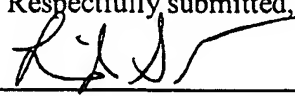
CONCLUSION

It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue, or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In light of the amendments contained herein, Applicant submits that the application is in condition for allowance, for which early action is requested. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026. If a fee is required for an extension of time under 37 CFR 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

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Respectfully submitted,
By: 
Linda G. Gunderson, Ph.D.
Attorney for Applicants
Reg. No. 46,341

QUALCOMM Incorporated
Attn: Patent Department
5775 Morehouse Drive
San Diego, California 92121-1714
Telephone: (858) 651-7351
Facsimile: (858) 658-2502